

## **Remarks**

Claims 56, 58-62, 65-67, 69-76, 78-81, 84-86, and 88-102 are currently pending in the application. Claims 56, 58-62, 65-67, 69-76, 78-81, 84-86, and 88-102 currently stand rejected. Claims 62, 74, 81, 85, 93, 99, and 101 are amended.

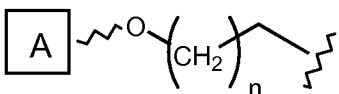
Applicant thanks the Examiner for granting a telephonic interview on October 21, 2008. Differences between the instant application and references cited in the Office Action were discussed and progress was made. The rejections levied in the Office Action are addressed individually below.

1. **Miscellaneous amendments.** Applicant amends claims 62, 74, 81, 85, 93, 99, and 101 to more particularly point out what Applicant regards as the invention. Because groups R<sub>D</sub>, R<sub>E</sub> and R<sub>F</sub> are not attached directly to the peptide backbone, but rather to an amino acid side chain carbon atom, Applicant has amended the definition of “n” in the structural definition of R<sub>D</sub>, R<sub>E</sub> and R<sub>F</sub>. Amended claims 62, 74, 81, 85, 93, 99, and 101 recite carbohydrate domains separated from the peptide backbone by 2 or more carbon atoms rather than 3 or more carbon atoms. Support for this amendment can be found in original claim 28 as well as throughout the specification, including page 12, line 17 through page 14, line 14, of the application as filed (*i.e.*, n = 0).

Claims 74 and 93 are amended to remove the oxygen atoms from the –OR<sub>D</sub>, –OR<sub>E</sub>, and –OR<sub>F</sub> groups. Applicant respectfully submits that claims 74 and 93 are dependent from claims depicting the correct structure and that one of ordinary skill in the art would understand the oxygen atoms to be a typographical error. Applicant respectfully submits that no new matter is added by the present amendment.

2. **Obviousness-type Double Patenting.** The Examiner rejects claims 56, 58, 59, 60-62, 65, 69-71, 73-76, 78-81, 84, 86, 88-90, 92-95, 97, and 98 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-47 of U.S. Patent 7,160,856 (the ‘856 patent). Applicant respectfully disagrees. As discussed with the Examiner in the telephonic interview on October 21, 2008, the ‘856 patent claims glycoconjugates wherein the carbohydrate domains are separated from the

peptide backbone by one carbon atom. In the glycoconjugates claimed in the ‘856 patent, each carbohydrate domain is attached to a natural amino acid residue such as serine or threonine. The present application claims multiantigenic glycopeptides comprising a peptide backbone made up of at least three amino acid residues, wherein two or more of said amino acids are independently substituted with a glycosidic moiety having the

structure: , wherein each occurrence of n is independently 1-8.

Accordingly, these glycopeptides comprise carbohydrate domains that are separated from the peptide backbone by two or more carbon atoms.

The carbohydrate determinant A of the presently claimed glycopeptides is attached to the peptide backbone via a non-natural amino acid due to the linker moiety. This difference (natural vs. non-natural) in attachment is expected to impart different properties to the claimed glycopeptides as compared to the glycoconjugates claimed in the ‘856 patent, for example in terms of ease of preparation and/or strength of induced immune response. Furthermore, the synthetic methods disclosed in the present application for linking the carbohydrate determinants to the peptide backbone are novel over the ‘856 patent (*e.g.*, the alkenyl glycosides of claim 61). Applicant respectfully submits there is no overlap of subject matter between the present application and the ‘856 patent, nor is the claimed subject matter of the present application obvious in light of the ‘856 patent. Applicant respectfully requests that the double patenting rejection be removed.

The Examiner rejects claims 56, 58, 59, 60-62, 65, 69-71, 73-76, 78-81, 84, 86, 88-90, 92-95, 97, and 98 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-47 of U.S. Patent 6,660,714 (the ‘714 patent). The ‘714 patent claims methods of use of the glycopeptides claimed in the ‘856 patent. Therefore, for the reasons cited above, the claimed subject matter of the present application is not obvious in light of the ‘714 patent. Applicant respectfully requests that the double patenting rejection be removed.

The Examiner rejects claims 56, 58-62, 65-67, 69-76, 78-81, 84-86, and 88-102 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 118-129, 132-146, and 148-199 of copending application

U.S.S.N. 10/209,618 (the '618 application). Applicant respectfully points out that a terminal disclaimer was filed on October 29, 2007 in the '618 application over the present application. Applicant requests that the double patenting rejection be removed.

The Examiner rejects claims 56, 58-62, 65-67, 69-76, 78-81, 84-86, and 88-102 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-47 of copending application U.S.S.N. 10/728,041 (the '041 application). In the telephonic interview on October 21, 2008, the Examiner indicated that this double patenting rejection would be removed due to the fact that the '041 application is the later filed application. Applicant respectfully requests that the Examiner remove the rejection in the present application.

**3. Rejections under 35 U.S.C. § 102(e).** Claims 56, 58-62, 65, 67, 69-71, 73-76, 78-81, 84, 86, 88-90, 92-95, 97, and 98 currently stand rejected under 35 U.S.C. § 102(e), as being anticipated by U.S. Patent 6,660,714 (the '714 patent). The Examiner claims the invention of the '714 patent that anticipates the instant claims "is claimed, rather than disclosed but not claimed." Applicant respectfully disagrees. As stated above, the glycoconjugates claimed in the '714 patent each comprise carbohydrate domains attached to a natural amino acid residue such as serine or threonine. Since the claimed glycopeptides of the present application comprise carbohydrate domains that are separated from the peptide backbone by two or more carbon atoms, the '714 patent does not claim subject matter that anticipates the instant claims. Applicant respectfully requests that the rejection be removed.

Applicant respectfully submits that the present case is now in condition for allowance. A Notice to that effect is requested.

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Respectfully submitted,

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